

From: "Kurt A. Fisher" <fisherka@csolutions.net>
Subject: Request to review geological hazards and first responder risk at proposed 4th Avenue Well Chlorination Treatment Plant in Memory Grove
Date: Tue, May 28, 2019 8:00 pm
To: karl.lieb@slcgov.com

Chief Lieb:

This email is to ask that you in your capacity as Fire Department Chief, if appropriate within your office's brief, to review a proposed site of a small chlorination plant by the Salt Lake City Department of Public Utilities in Memory Grove directly in the geologic stream bed of City Creek Canyon. The creek has been bypassed by an underground conduct but has been subjected to multiple occurrences of high-snow pack runoff flooding, most recently in 1983 with a peak flow of 331 cubic feet per second. I understand the 330 cubic feet per second flow is the current design limit. The site is also susceptible to cloud burst flooding similar to that that destroy downtown Farmington in 1923 and resulted in a 2,400 cubic feet per second flow from Perry's Hollow in 1945. The site is also in a high liquefaction zone with expected horizontal ground movements of 0.3 to 1.0 meters during an anticipated greater than magnitude 6.75 earthquake.

In a future cloudburst flood, first responders may be subjected to electrocution risk as water penetrates the high-voltage, high-power grade level transforms shown in the treatment plant's concept drawings. During a cloudburst flood or by liquefaction during a 6.75 earthquake, the building's foundation could be undermined, resulting in a chlorine chemical release when first responders will be needed elsewhere. Finally, the several hundred gallons of chlorine stored in the building could be easily breached by a terrorist, and its contents mixed with vinegar (acetic acid) that would produce a large cloud of chlorine and chloramine gas.

I have written comments on this matter that contain supporting background. A collection can be downloaded from url:

<http://fisherka.csolutionshosting.net/misc/FourthAveWell/20190528WellCityCouncilComm604wAttach.pdf>

There are two hearings coming up on this matter. The first is budget request to build the chemical plant on June 4 before the Salt Lake City Council. The second is a permitting hearing before the Salt Lake City Historic Landmark Commission for a zoning exception.

If you feel the site has high geotechnical or first responder risks that would affect the proposed siting, I invite you to contact the Landmark Commission, the Council or the Department of Public Utilities regarding the same. To my uneducated eye, this seems too high risk of a site to locate a chemical treatment plant.

Please feel free to contact me with respect to this matter.

Very Truly Yours,

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Attachments:

20190525WellCommentFloodingFinal.pdf
Size: 1 M
Type: application/pdf
